

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-9 are pending in the present application. Claims 1-9 have been amended by the present response.

In the outstanding Office Action, Claim 7 was rejected under 35 U.S.C. §112, second paragraph, and Claims 1-9 were rejected under 35 U.S.C. §103(a) as unpatentable over Polenick et al. (U.S. Patent No. 6,158,207, herein "Polenick") in view of Jones, Jr. et al. (U.S. Patent No. 7,114,351, herein "Jones").

Claims 1-9 have been amended to better comply with U.S. claim drafting practice without adding any new subject matter.

Regarding the rejection of Claim 7 under 35 U.S.C. §112, second paragraph, the outstanding Office Action indicates that this claim recites "each gas generator group," which lacks antecedent basis. However, Applicants note that Claim 1, from which Claim 7 depends, recites in step a) "creating a succession of gas generator groups of gas turbines" and thus, Claim 7 correctly recites each gas generator group. Accordingly, it is respectfully requested this rejection be withdrawn.

The rejection on the merits of Claims 1-9 over the applied art is respectfully traversed for the following reasons.

Briefly recapitulating, independent Claim 1 is directed to a method for controlling the useful life of gas turbines of a production plant. The method includes a) creating a

succession of gas generator groups of gas turbines to be subjected to maintenance, b) substituting a first gas generator group of gas turbines of the succession with an auxiliary gas generator group, c) inspecting the first substituted gas generator group of gas turbines, by subjecting it to ordinary maintenance operations, d) substituting the second gas generator group of gas turbines of the succession with the first verified gas generator group of gas turbines, e) inspecting the second substituted gas generator group of gas turbines, by subjecting it to ordinary maintenance operations, and f) repeating steps b), c) d) and e) for all the gas generator groups of gas turbines of the succession.

Therefore, as illustrated in Figures 1-4, a succession of gas generator groups of gas turbines ($20^I, 20^{II} \dots 20^{VIII}$) are sequentially subjected to maintenance by substituting a first gas generator group 20^I with an auxiliary gas generator group 40, thus maintaining the plant operational with small interruptions. Once the maintenance of the first gas generator group 20^I is performed, a second gas generator group 20^{II} is substituted with the first gas generator group 20^I and the second gas generator group 20^{II} is inspected as shown in Figure 3. The process continues until all the gas generator groups are undertaking maintenance operations.

Turning to the applied art, Polenick is directed to a method for normalizing maintenance intervals of multiple gas turbine engines. More specifically, as shown in Figures 1 and 2, a master control element 7 receives signals from each engine 1-5 and calculates various parameters as described by Polenick in the paragraph bridging

columns 2 and 3. Based on these parameters, the master control 7 decides which engine 1-5 to start at a given time such that due maintenance times for each engine occur successively and not simultaneously. In other words, as specifically stated by Polenick at column 1, lines 48-53, "a method of selecting which engines to start and stop so that the engines reach their maintenance interval in a nonrandom manner" is proposed.

Thus, the method of Polenick controls the starting and stopping times of each engine such that although the five engines 1-5 age together and have the same maintenance intervals, the engines will come up for maintenance at different times in future and not at the same time, thus preventing a complete shutdown of the facility for maintenance purposes.

However, Polenick does not teach or suggest having an auxiliary gas generator group as recited by Claim 1 and as recognized by the outstanding Office Action in the paragraph bridging pages 2 and 3. In addition, Polenick does not teach or suggest that after substituting a first gas generator with an auxiliary generator group and performing maintenance of the first gas generator group, a second gas generator group is substituted with the first gas generator group, and maintenance is performed on the second gas generator group. Further, Polenick does not teach or suggest that the above claimed procedure is repeated for all motors 1-5 as recited by Claim 1.

Recognizing only that Polenick does not teach or suggest using an auxiliary gas turbine, the outstanding Office Action relies on Jones to correct this deficiency of

Polenick. However, Jones does not cure the other discussed deficiencies of Polenick with regard to independent Claim 1.

More specifically, Jones is directed to an electrical liquefied natural gas (LNG) system that includes, as shown in Figure 1, a liquefaction facility 12 that receives liquefied gas from compressors 14, 16, and 18. Compressors 14, 16, and 18 are activated by electrical motors 20, 22, and 24. These electrical motors receive electrical power from generators 70 and 72. Generators 70 and 72 produce electricity when activated by gas turbines 54 and 56.

Jones discloses that by not directly driving compressors 14, 16, and 18 with the gas turbines 54 and 56 and by interposing between the gas turbines 54 and 56 and compressors 14, 16, and 18 electrical generators 70 and 72 and electrical motors 20, 22, and 24, it is possible to more efficiently control compressors 14, 16, and 18.

Further Jones discloses that it is possible to have a stand-by gas turbine to replace one of the existing gas turbines 54 and 56 in case that such a gas turbine fails or maintenance is required.

However, Jones does not teach or suggest that after replacing a failed gas turbine 54 or 56 with an auxiliary gas turbine, at the conclusion of the maintenance of the failed gas turbine, the other working gas turbine is replaced by the newly inspected gas turbine, as required by independent Claim 1.

In addition, neither Polenick nor Jones teaches or suggests substituting a group of gas turbines with an auxiliary group, as recited by Claim 1.

Therefore, it is respectfully submitted that independent Claim 1 and each of the claims dependent therefrom patentably distinguish over Polenick and Jones, either alone or in combination.

Accordingly, in light of the above discussion and in view of the enclosed amendments, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested. If, however, there are any remaining unresolved issues that would prevent the issuance of the Notice of Allowance, the Examiner is urged to contact the undersigned at (540) 361-2601 in order to expedite prosecution of this application.

Respectfully submitted,
POTOMAC PATENT GROUP PLLC

By: /Remus F. Fetea/
Remus F. Fetea, Ph.D.
Registration No. 59,140

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Customer No. 86661
Potomac Patent Group PLLC
P.O. Box 270
Fredericksburg, VA 22404
(540) 361-2601